

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): An aneurysm embolization device and deployment system for use in placing said embolization device at a preselected position within a vessel of a human body, said embolization device and deployment system comprising:

a deployment catheter having a small diameter lumen extending therethrough and having a proximal section and a distal section, said catheter being formed of a material which is sufficiently flexible to pass through the vessels of the body;

an embolization device including a headpiece having a proximal section and a distal section;

a central connecting member which takes the form of a flexible fiber, said connecting member having a proximal end and a distal end, the proximal end of said connecting member being attached to the distal section of said headpiece;

a spherical member which takes the form of a small diameter ball, said spherical member being carried by said central connecting member; and,

said proximal section of said headpiece being disposed within the distal section of said deployment catheter so that when a fluid pressure is applied to the lumen of said catheter the catheter releases the headpiece at the preselected position.

Claim 2 (Original): An aneurysm embolization device as defined in claim 1, wherein said spherical member is formed from a polymer.

Serial No. 10/729,523

Claim 3 (Original): An aneurysm embolization device as defined in claim 1, wherein said headpiece and said spherical member is formed from a metallic material.

Claim 4 (Original): An aneurysm embolization device as defined in claim 1, wherein said central connecting member takes the form of a shape memory wire such that, after said aneurysm embolization device is deployed at the preselected position within the vessel said central connecting member tends to assume a predetermined configuration.

Claim 5 (Original): An aneurysm embolization device as defined in claim 1, wherein said central connecting member takes the form of a stretchable fiber.

Claim 6 (Original): An aneurysm embolization device as defined in claim 1, wherein said spherical member includes a plurality of flexible filaments extending outwardly from said spherical member in order to enhance the occlusive effect of said spherical member.

Claim 7 (Original): An aneurysm embolization device as defined in claim 1, wherein said spherical member includes a time-released adhesive coating on the periphery of said spherical member in order to enhance the occlusive effect of said spherical member.

Claim 8 (Original): An aneurysm embolization device as defined in claim 1, wherein said aneurysm embolization includes a plurality of spherical members and a plurality of flexible filaments coupling each of said spherical members to an adjacent spherical member.

Claim 9 (Original): A method for placing an aneurysm embolization device at a pre-selected position within a vessel, the method comprising the steps of:

providing a deployment catheter having a small diameter lumen extending therethrough and being formed of a material which is sufficiently flexible to pass through the vessels of the body, providing an aneurysm embolization device including a headpiece coupled to the distal end of the said deployment catheter; the embolization device includes a central connecting member which takes the form of a flexible fiber, and is attached to the headpiece, and the embolization device includes a spherical member which takes the form of a small spherical ball which is attached to the central connecting member;

introducing said deployment catheter with said aneurysm embolization device into a vessel and positioning said aneurysm embolization device at a pre-selected position within the vessel; and,

releasing said aneurysm embolization device at the preselected site with the vessel.